

# FY19 Program Update

November 16, 2018

Director Mary Beth Tung, PhD., J.D.



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Energy  
Administration



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# Maryland CO<sub>2</sub> Budget Trading Program

Luke Wisniewski

Air and Radiation Administration

Climate Change Division

November 16, 2018

# Background

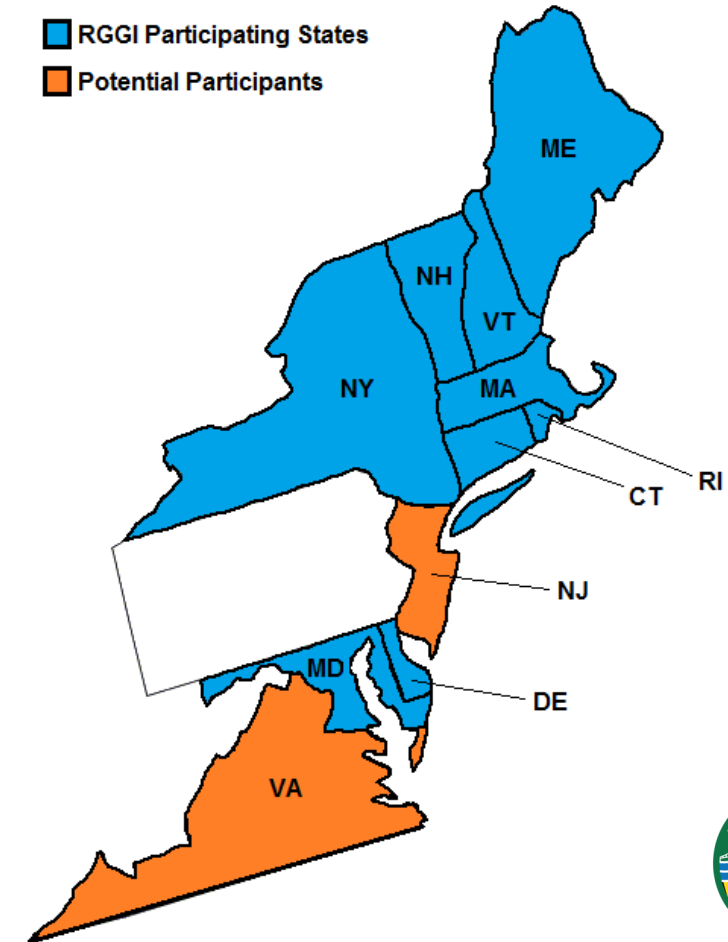
## Regional Greenhouse Gas Initiative (RGGI)



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# RGGI Basics

- Maryland officially became the 10<sup>th</sup> member of RGGI on April 20, 2007
- RGGI is a regional cap and invest program focused on reducing carbon dioxide (CO<sub>2</sub>) emissions from power plants
  - Cooperative 9 state effort
    - Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, Rhode Island, Vermont
    - New Jersey was originally a member but left the program
    - New Jersey and Virginia are currently potential participants
- Not your “typical” cap and invest program
  - CO<sub>2</sub> reductions achieved by reduced demand, not “scrubbers” or other end-of-the-pipe pollution control technologies
  - RGGI reductions to be achieved by
    - Setting a cap for the region
    - Auctioning allowances
    - Using auction proceeds to create incentives for energy efficiency and reduced demand
- Will result in a small, but positive benefit to Maryland electricity consumers



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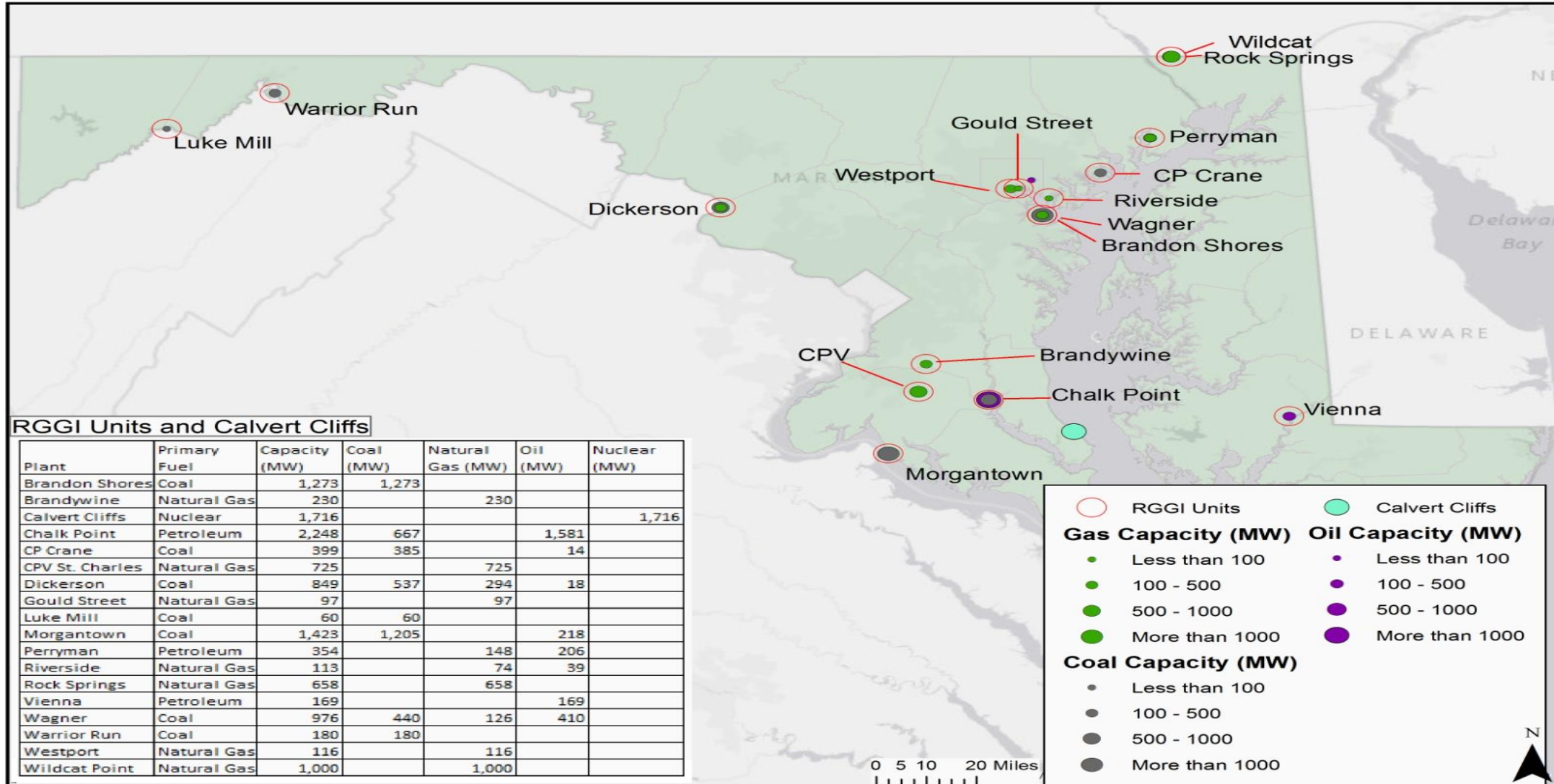
# Original RGGI Goals

- Original RGGI goal was to show that a cap and invest program for CO<sub>2</sub> was possible
  - Modest reduction goal
  - Proactive concept to provide revenue for energy efficiency programs and to cover cost of program through sale of allowances
- Generation-based Program
  - Each state apportionment set at average 2000 – 2002 emissions
- 10% Reduction Goal
  - Offset growth in emissions and make a small reduction



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# MD RGGI Units



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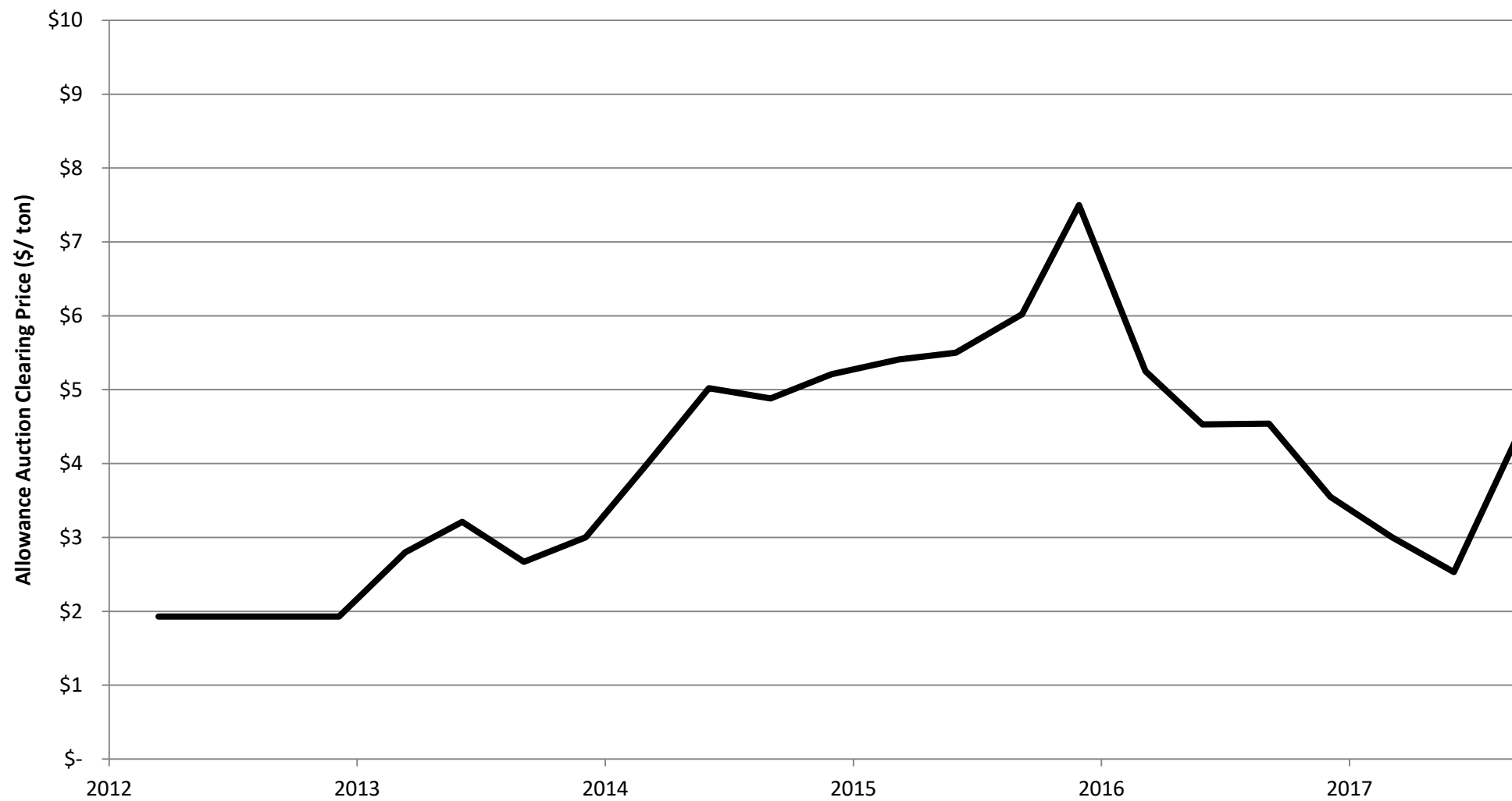
# Auctions

- Primary and Secondary market auction platform
- Participation in all 38 quarterly auctions to date
- Total amount of proceeds from RGGI auctions more than \$2.84 billion
  - \$584.6 million for Maryland
- Strategic Energy Investment Fund (SEIF)
- Cost Containment Reserve
- Auction 41 to be held on September 5, 2018



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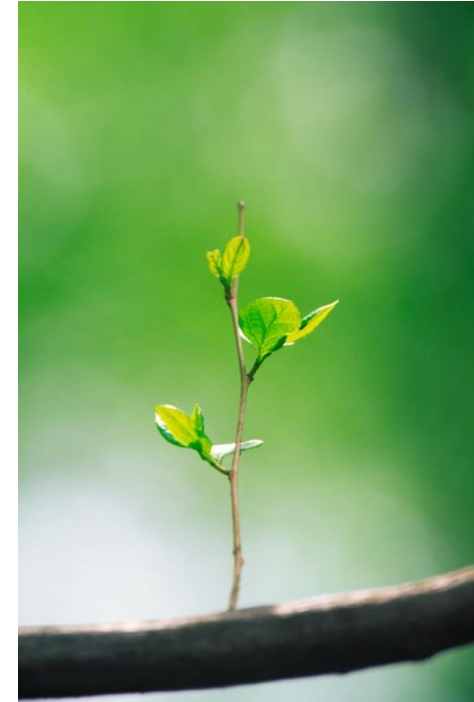
# RGGI Prices





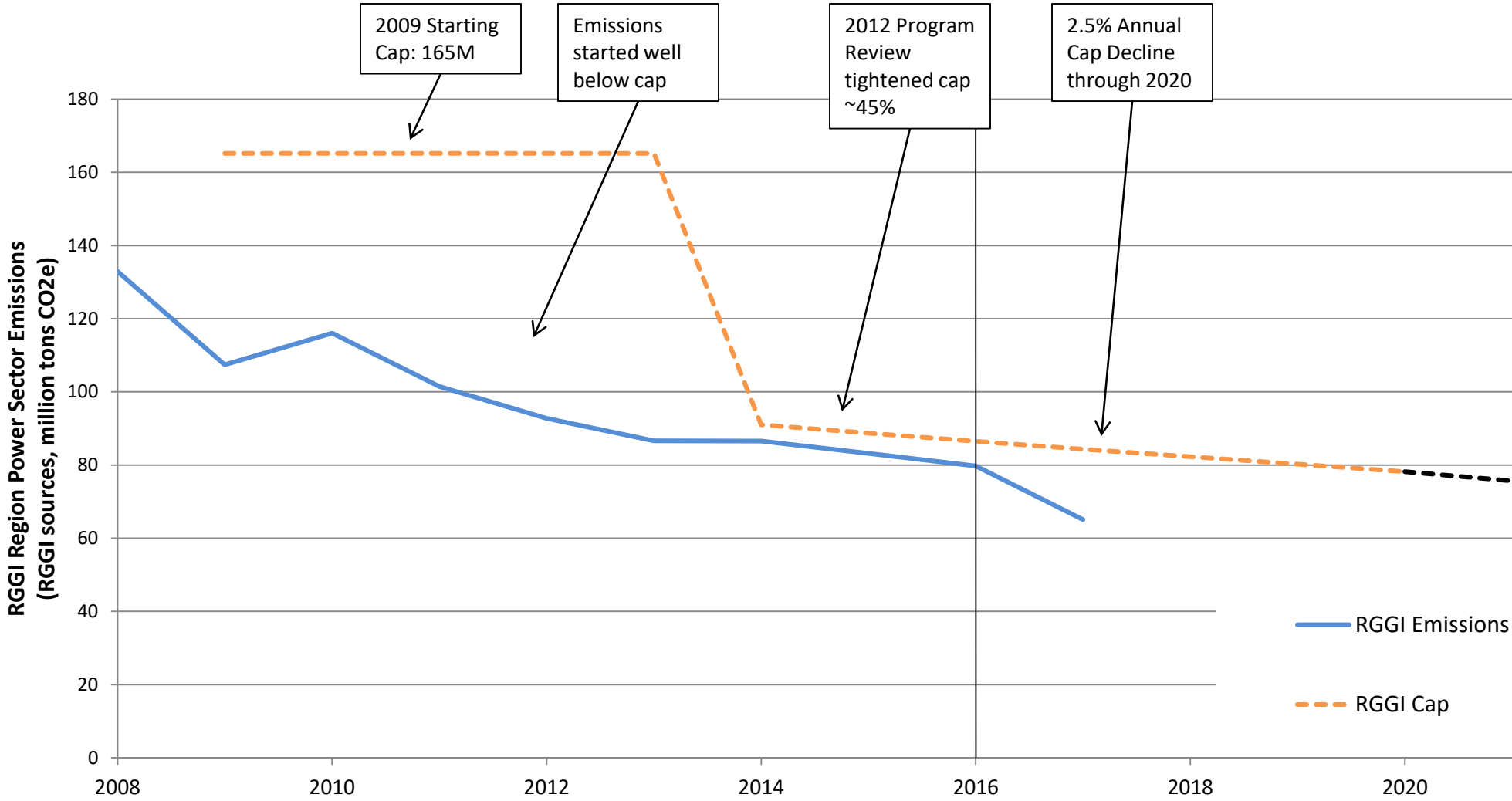
# 2010/2012 Program Review

- 2010 review required by COMAR 26.09.02.02E
- Contract with Regional Economic Studies Institute (RESI) to conduct review
  - Reviewed auctions, auction prices, electricity generation in MD, set-aside accounts, COATS, and an overall impact analysis
  - Draft delivered August 1, 2010
- 2012 review required by RGGI MOU
  - Required a review of all components of the RGGI program
  - Determined that a future program review would occur no later than 2016



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# 2012 Program Review Cap Change



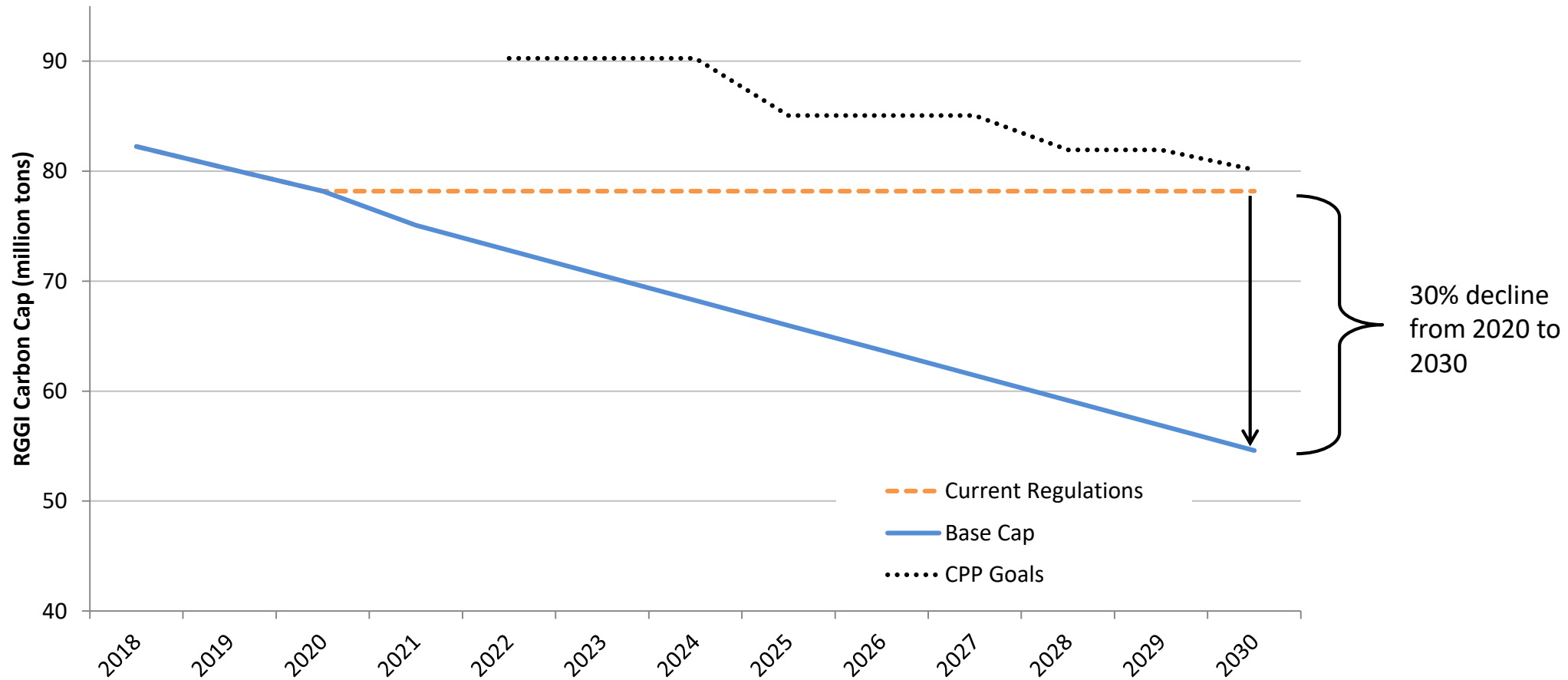
# 2016 Program Review

- 2016 Program Review followed the same format as the 2012 Program Review
- On behalf of the RGGI states, RGGI, Inc. facilitated public stakeholder meetings to gather stakeholder input for the states' 2016 Program Review
- 2016 Program Review solicited stakeholder input on RGGI program design elements, including considerations for compliance under the EPA Clean Power Plan
- RGGI states also held state-specific stakeholder meetings
- RGGI states engaged in routine private conferences to review and reach a consensus on any changes to the RGGI program
  - A review of all components of the RGGI program occurred



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# 2016 Program Review Cap Changes



# Proposed Amendments

## RGGI Model Rule and Maryland CO<sub>2</sub> Budget Trading Program Updates



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# Maryland Base Budget

Maryland Base Budget by Year	
Year	Allowances
2018	18,671,045
2019	17,931,922
2020	17,483,623
2021	16,790,271
2022	16,281,475
2023	15,772,679
2024	15,263,882
2025	14,755,086
2026	14,246,290
2027	13,737,494
2028	13,228,698
2029	12,719,902
2030 and each succeeding calendar year	12,211,106



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# RGGI Model Rule Update to Cost Containment Reserve (CCR)

- The Model Rule contains language for the continued use of a CCR
  - Provides flexibility and cost containment for the program
  - Consists of a fixed quantity of allowances, in addition to the cap
    - Held in reserve
    - Only made available for sale if allowance prices exceed predefined price levels



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## RGGI Model Rule Update to CCR cont.

- The Model Rule contains language for an annual CCR allowance quantity of 10% of the regional cap beginning 2021 and each succeeding year thereafter.
- The CCR allowances would be made available immediately in any auction in which demand for allowances at prices above the CCR trigger price exceeds the supply of allowances offered for sale in that auction prior to the addition of any CCR allowances.
- If the CCR is triggered, the CCR allowances would only be sold at or above the CCR trigger price.
- The CCR Trigger Price will be \$13.00 in 2021 and rise at 7% per year, so that the CCR will only trigger if emission reduction costs are higher than projected.



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# Maryland CCR Allocation

Maryland Cost Containment Reserve (CCR) Allocation by Year	
Year	Allowances
2018	2,236,466
2019	2,236,466
2020	2,236,466
2021	1,679,027
2022	1,628,147
2023	1,577,267
2024	1,526,388
2025	1,475,508
2026	1,424,629
2027	1,373,749
2028	1,322,869
2029	1,271,990
2030 and each succeeding calendar year	1,221,110



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# Maryland CCR Trigger Price

- COMAR 26.09.01.02B(34-1)
  - “CO<sub>2</sub> cost containment reserve trigger price, or CCR trigger price”
- Definition added explaining how the CCR trigger price is calculated and what the CCR trigger price shall be for years 2017 through 2030.
  - 2017: \$10.00
  - 2018 to 2020: 1.025 multiplied by the CCR trigger price from the previous calendar year (rounded to the nearest whole cent)
  - 2021: \$13.00
  - 2022 to 2030: 1.07 multiplied by the CCR trigger price from the previous calendar year (rounded to the nearest whole cent)



# Maryland CCR Trigger Prices

Cost Containment Reserve (CCR) Trigger Price by Year	
Year	CCR Trigger Price Amount
2017	\$10.00
2018	\$10.25
2019	\$10.51
2020	\$10.77
2021	\$13.00
2022	\$13.91
2023	\$14.88
2024	\$15.93
2025	\$17.04
2026	\$18.23
2027	\$19.51
2028	\$20.88
2029	\$22.34
2030	\$23.90



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# RGGI Model Rule - Emissions Containment Reserve (ECR)

- The Model Rule contains language for the creation and use of an ECR
  - Responds to supply and demand in the market if emissions reduction costs are lower than projected
  - States will withhold allowances from circulation to secure reductions if prices fall below established trigger prices
    - Allowances withheld will not be reoffered for sale



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## RGGI Model Rule Update to ECR cont.

- The Model Rule contains language for an annual ECR allowance withholding limit of 10% of the budgets of states implementing the ECR.
- The ECR trigger price will be \$6.00 in 2021, and rise at 7% per year, so that the ECR will only trigger if emission reduction costs are lower than projected.



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# Maryland ECR Allocation

Maryland Emission Containment Reserve (ECR) Allocation by Year	
Year	Allowances
2021	1,679,027
2022	1,628,148
2023	1,577,268
2024	1,526,388
2025	1,475,509
2026	1,424,629
2027	1,373,749
2028	1,322,870
2029	1,271,990
2030 and each succeeding calendar year	1,221,111



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# Maryland ECR Trigger Price

- COMAR 26.09.01.02B(34-3)
  - “CO<sub>2</sub> emissions containment reserve trigger price, or ECR trigger price”
- Definition added explaining how the ECR trigger price is calculated and what the ECR trigger price shall be for years 2021 through 2030.
  - 2021: \$6.00
  - 2022 to 2030: 1.07 multiplied by the ECR trigger price from the previous calendar year (rounded to the nearest whole cent)



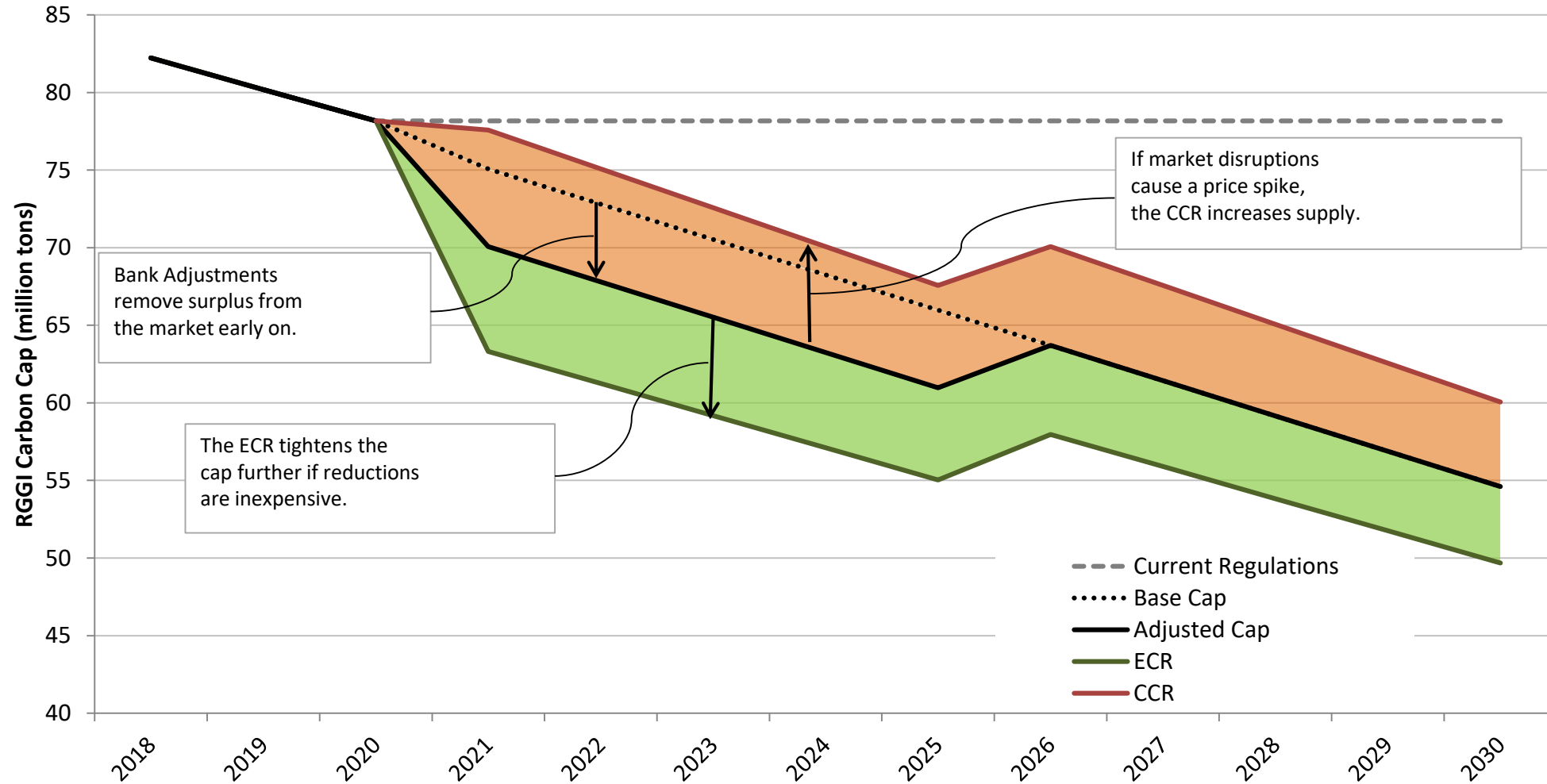
# Maryland ECR Trigger Prices

Maryland Emissions Containment Reserve (ECR) Trigger Price by Year	
Year	ECR Trigger Price Amount
2021	\$6.00
2022	\$6.42
2023	\$6.87
2024	\$7.35
2025	\$7.86
2026	\$8.42
2027	\$9.00
2028	\$9.63
2029	\$10.31
2030	\$11.03

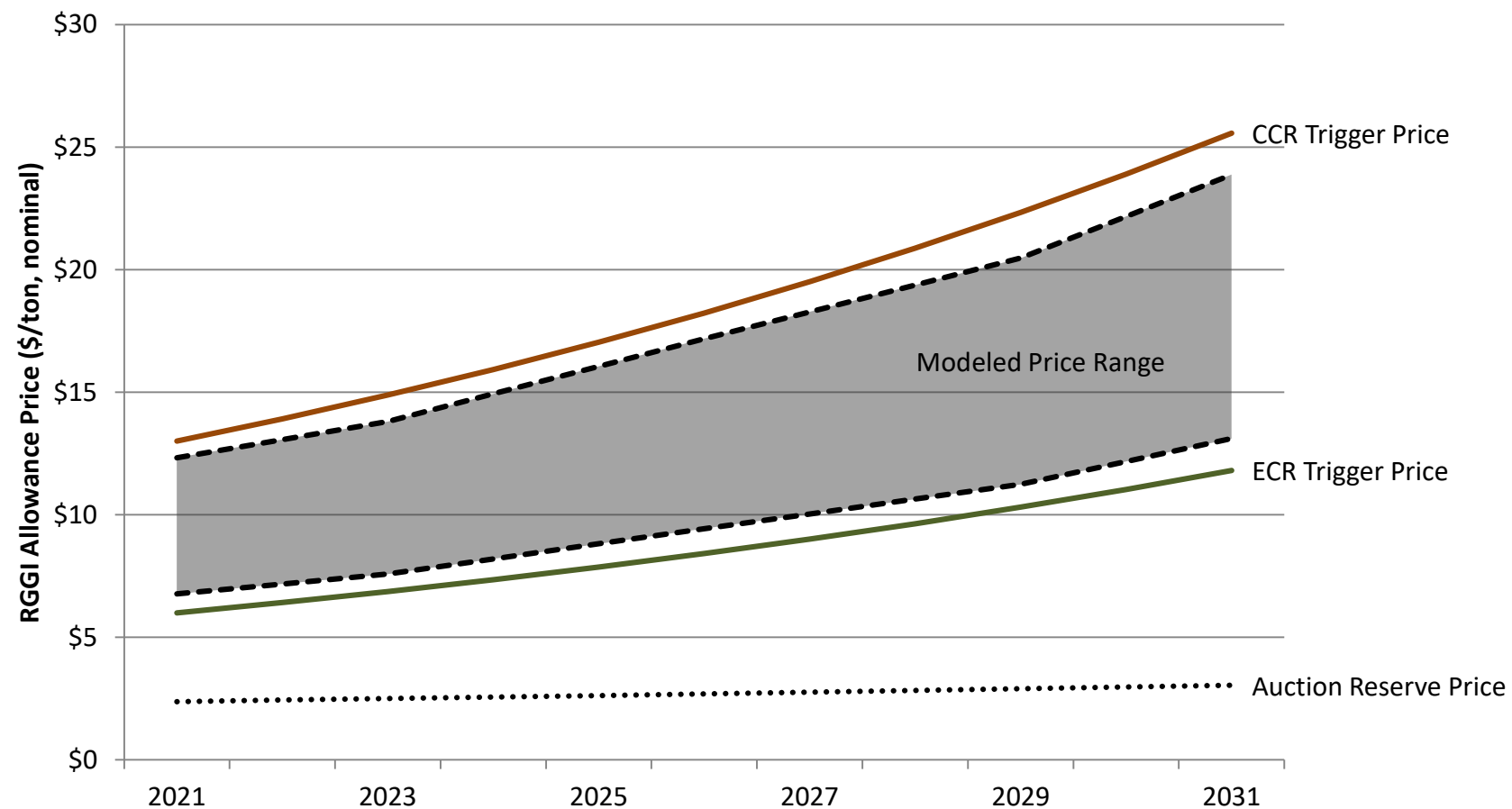


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# Adaptive Cap



# CCR and ECR Price Triggers



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# Maryland Budget Adjustments

- COMAR 26.09.02.03H
  - Third Adjustment for Banked Allowances.
- On March 15, 2021, the Department shall establish the third adjustment for banked allowances quantity for allocation years 2021 through 2025.
  - Formula included to account for potential future changes to program/budgets.



# Maryland Budget Adjustments

- COMAR 26.09.02.03J
  - General Distribution of CO<sub>2</sub> Allowances.
- Changes reflect recent regulatory updates to the allocations of the Voluntary Renewable Set-Aside Account and Clean Generation Set-Aside Account.



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# Limited Industrial Exemption Set-aside Account Allocation

- COMAR 26.09.02.03J(3)(a)
  - The allocation of CO<sub>2</sub> allowances to the Limited Industrial Exemption Set-aside Account will change to the following values:
    - 2018: 3,465,101 allowances
    - 2019: 2,976,734 allowances
    - 2020: 2,488,367 allowances
    - 2021 and each succeeding calendar year: 2,000,000 allowances
- 26.09.02.06G
  - “After the Department has retired CO<sub>2</sub> allowances from the Limited Industrial Set-aside Account for the preceding calendar year, the Department shall supplement the remaining allowances in the account by transferring from the Consumer Energy Efficiency Account the number of allowances needed to restore the balance of the Limited Industrial Set-aside Account to the amount described in Regulation .03J(3)(a) of this chapter for that calendar year.”



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# Long Term Contract Set-aside Account Purchase Limitation (not in draft)

- 26.09.02.07C
  - “The number of allowances purchased from the Long Term Contract Set-aside Account by an applicant may not exceed the equivalent tons of CO<sub>2</sub> that the applicant emits in the prior calendar year.”



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# RGGI Model Rule Update to Offsets

- The Model Rule contains language that eliminates two offset categories:
  - SF<sub>6</sub> Offset Category
  - End-Use Energy Efficiency Offsets Category
- Updates and retains three categories that some States may continue to implement
- Any awarded offset allowances would remain fully fungible across the states.



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# Maryland Offset Changes

- Reduction in Emissions of Sulfur Hexafluoride (SF<sub>6</sub>) offset category removed
  - Previously COMAR 26.09.03.04
- Reduction or Avoidance of CO<sub>2</sub> Emissions from Natural Gas, Oil, or Propane End-Use Combustion Due to End-Use Energy Efficiency offset category removed
  - Previously COMAR 26.09.03.06



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# Summary of RGGI Model Rule Updates

- Miscellaneous
  - COMAR 26.09.01.02B(72-2)
    - Minimum Reserve Price
      - The Model Rule retains language to increase the minimum reserve price by 2.5 percent each year



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# Questions?



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Ralph Scherini



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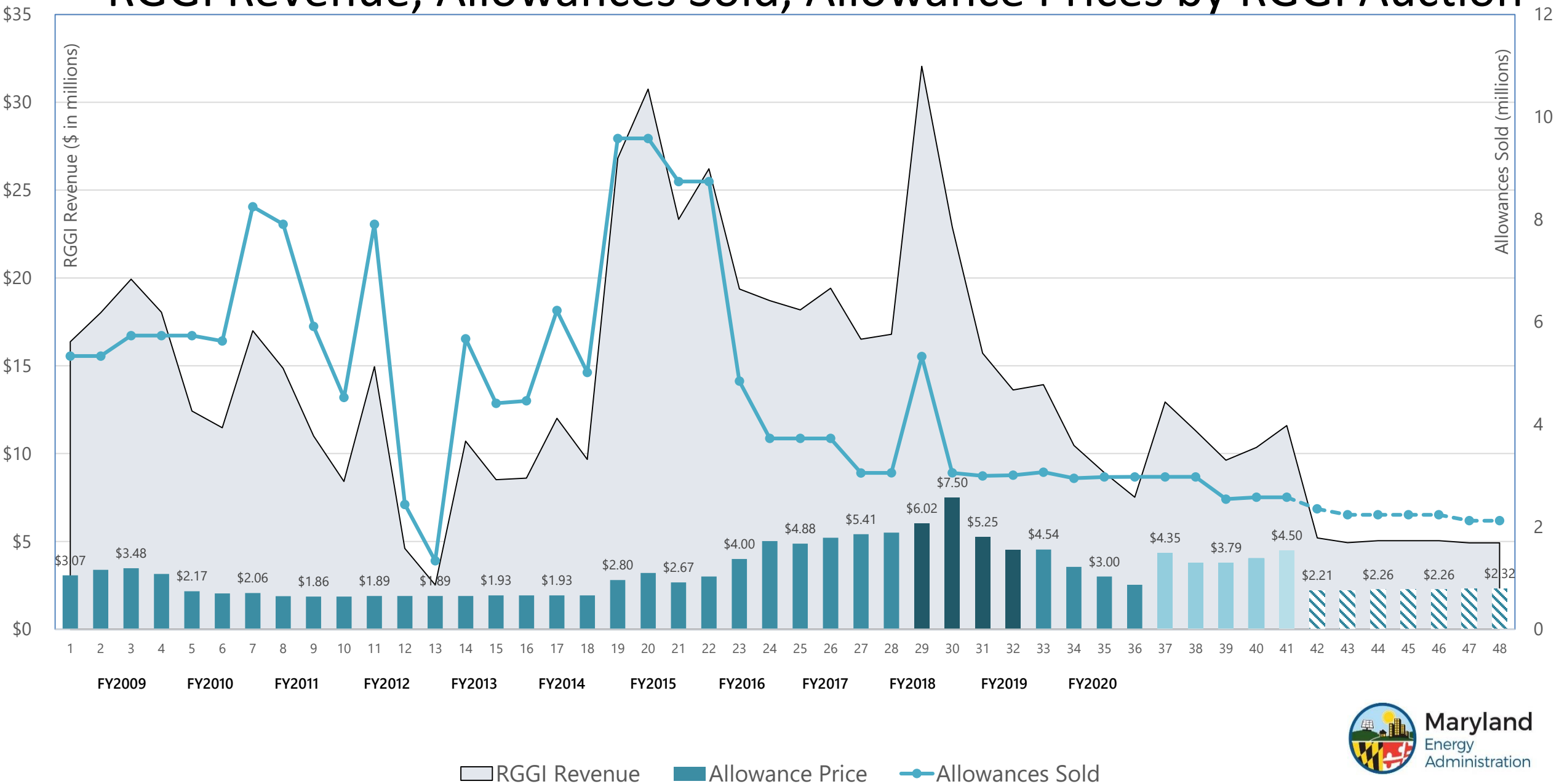


# Strategic Energy Investment Fund

- SEIF  $\neq$  RGGI
- SEIF includes revenue from:
  - RGGI Auction Sales
  - Alternative Compliance Payment (ACP)
  - Interest on Fund Balances
  - OSW Development Funds - \$30M
  - Customer Investment Fund - \$14.4M
  - Dominion Cove Point Contribution - \$40M
  - Exelon/Constellation Merger ACP - \$44M
  - Exelon/Pepco Merger MFN - \$9M
  - AltaGas/Washington Gas Light (WGL) Merger - \$30M
- Increase in RGGI auction clearing prices following the 2014 Program Review tightening of the RGGI cap and again following 2016 Program Review



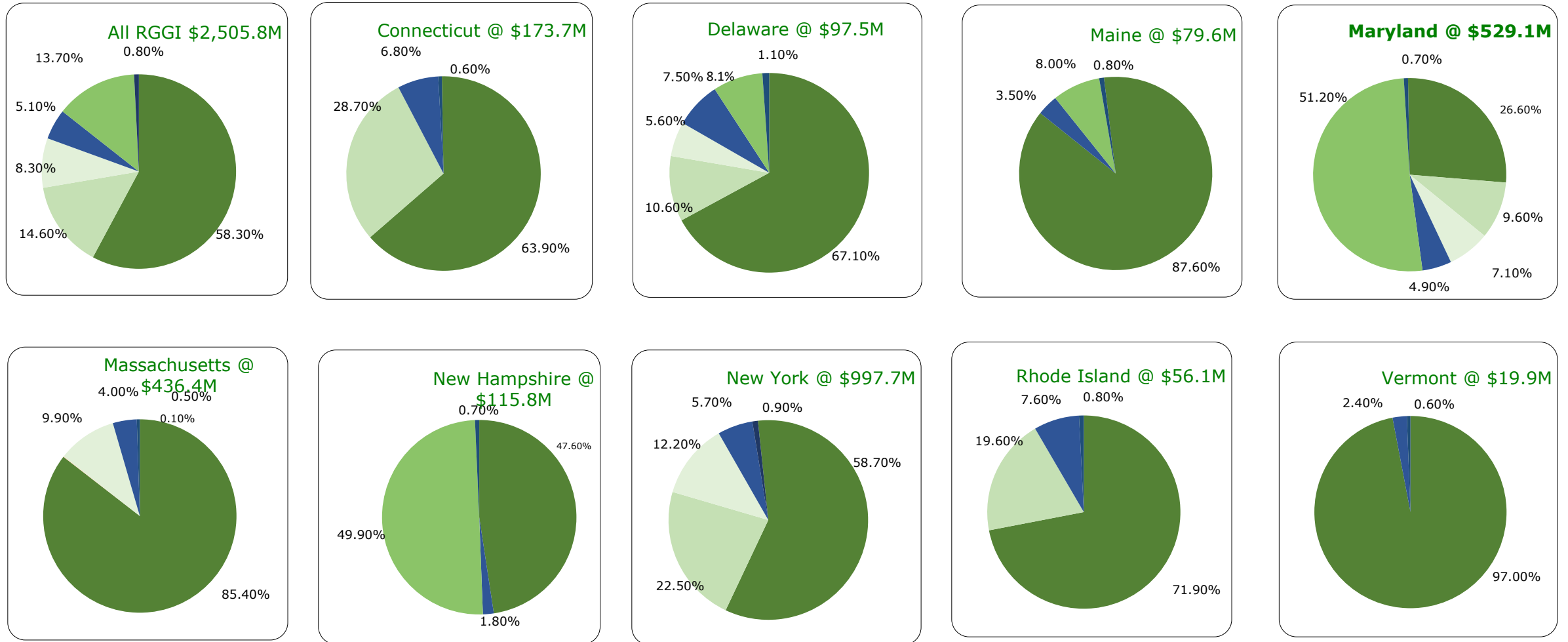
# RGGI Revenue, Allowances Sold, Allowance Prices by RGGI Auction



# RGGI Formula

	Original Legislation 2008		BRFA 2009		BRFA 2010		BRFA 2011		BRFA 2013		BRFA 2015	
DHS/EUSP	Straight	17%	Up to	50%	Up to	50%	Up to	50%	Up to	50%	At Least	50%
Rate Relief	Straight	23%	Straight	23%	Straight	23%	Zero	0%	Zero	0	Zero	0
EE L/M	At Least	23%	At Least	8.75%	At Least	8.75%	At Least	10%	At Least	10%	At Least	10%
EE Other	At Least	23%	At Least	8.75%	At Least	8.75%	At Least	10%	At Least	10%	At Least	10%
RE	Up to	10.50%	At Least	6.5%	At Least	6.5%	At Least	20%	At Least	20%	At Least	20%
Admin	Up to	3.50%	Up to	3%	Up to	3%	Up to	10%	Up to	10%	Up to	10%
	Not to Exceed \$4M		Not to Exceed \$4M		Not to Exceed \$4M		Not to Exceed \$4M		Not to Exceed \$5M		Not to Exceed \$5M	

# Regional Investment of RGGI CO<sub>2</sub> Allowance Proceeds – Cumulative Through 2016



■ Energy Efficiency 
 ■ Clean & Renewable Energy 
 ■ GHG Abatement 
 ■ Administration 
 ■ Direct Bill Assistance 
 ■ RGGI, Inc.

## Regional Investment of RGGI CO<sub>2</sub> Allowance Proceeds – Cumulative Through 2016

State	Cumulative Auction Proceeds	Direct-Bill Assistance	Energy Efficiency	Clean & Renewable Energy	Admin.	Green-House Gas Abatement	RGGI, Inc.
Connecticut	\$173,700		64%	28.7%	6.8%		0.6%
Delaware	\$97,500	8.1%	67%	10.6%	7.5%	5.6%	1.1%
Maine	\$79,600	8.0%	88%		3.5%		0.8%
Massachusetts	\$436,400		85%	0.1%	4.0%	9.9%	0.5%
New Hampshire	\$115,800	49.9%	48%		1.8%		0.7%
New York	\$997,700		59%	22.5%	5.7%	12.2%	0.9%
Rhode Island	\$56,100		72%	19.6%	7.6%		0.8%
Vermont	\$19,900		97%		2.4%		0.6%
<b>Total w/o MD</b>	<b>\$1,976,700</b>	<b>3.6%</b>	<b>67%</b>	<b>15.0%</b>	<b>5.2%</b>	<b>8.6%</b>	<b>0.8%</b>
Maryland	\$529,100	51.2%	27%	9.6%	4.9%	7.1%	0.7%
<b>Total ALL RGGI</b>	<b>\$2,505,800</b>	<b>13.7%</b>	<b>58%</b>	<b>14.6%</b>	<b>5.1%</b>	<b>8.3%</b>	<b>0.8%</b>



# SEIF Status of Funds

## Sources of Funds

\$ Thousands

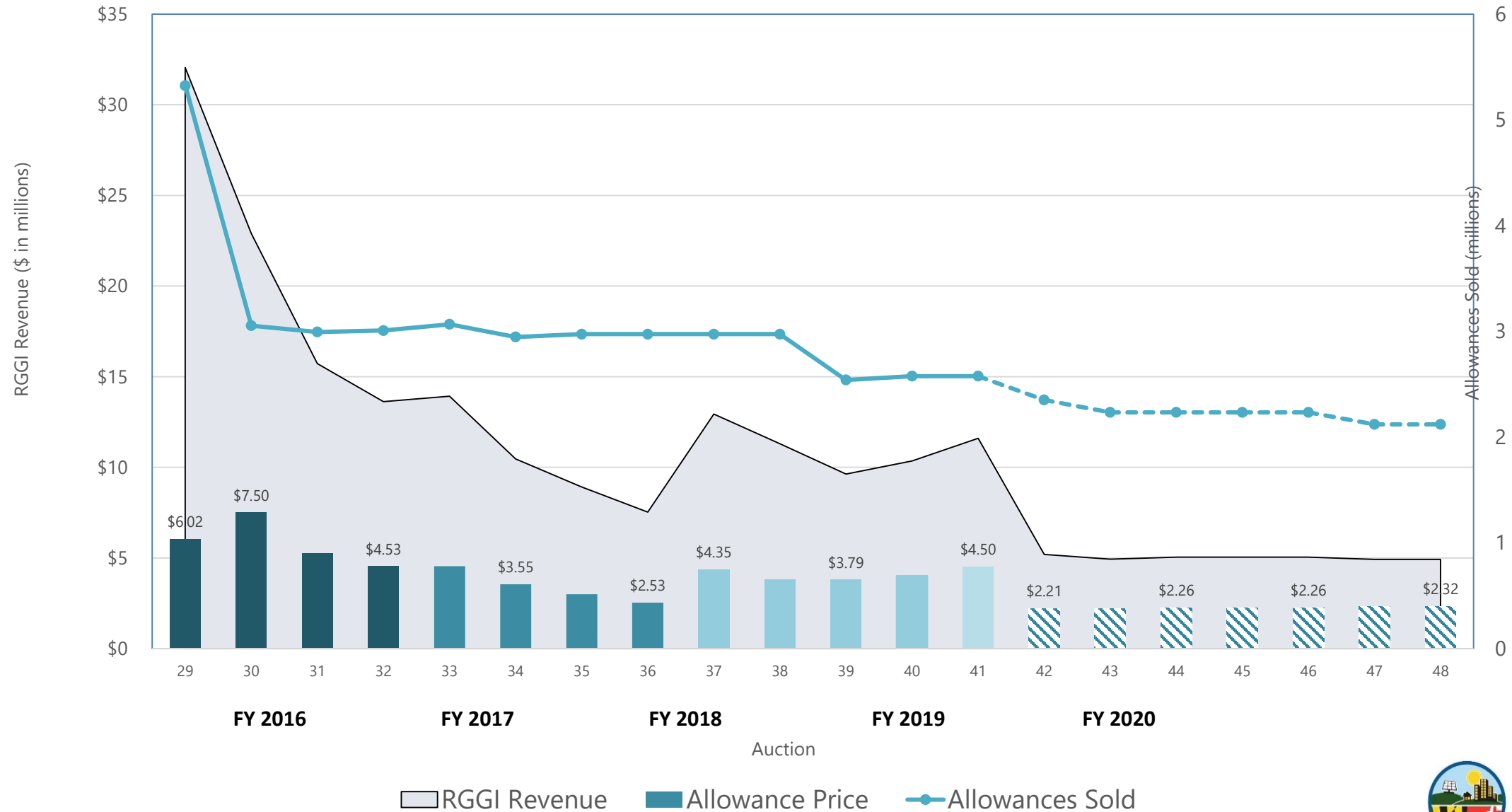
Cash Balance 6/30/2019		177,088
Less Encumbrances	-45,613	
Less Transfer Commitments	-34,110	
Available Fund Balance 7/1/2018		97,365
FY2019 Revenues		68,706
RGGI Revenues Projected at Floor	24,386	
Fund Interest	1,500	
Final Cove Point Deposit	8,000	
Final Pepco Constellation MFN Deposit	4,500	
AltaGas/WGL Merger Deposit	30,320	
Available Fund Balance for FY2019		166,070

# SEIF Fund Status Detail

\$ Thousands

	DHS EUSP	EE L/M	EE Other	RE	Admin	ACP	OSW	Cove Point	Pepco MFN	Alta Gas Mergr	Cleari ng	Total
<b>Cash Balances 6/31/18</b>	<b>24,772</b>	<b>9,982</b>	<b>20,009</b>	<b>24,734</b>	<b>16,593</b>	<b>40,180</b>	<b>8,819</b>	<b>27,328</b>	<b>4,123</b>		<b>550</b>	<b>177,088</b>
Encumbrances at 6/31/18	0	-8,397	-10,998	-12,707	-385	-8,757	-1,476	-2,272	-623			-45,613
Transfer Commitments at 6/31/18	0	-1,994	-249	-4,300		-2,495		-24,522			-550	-34,110
<b>Available Balances at 7/01/2018</b>	<b>24,772</b>	<b>-409</b>	<b>8,762</b>	<b>7,727</b>	<b>16,208</b>	<b>28,929</b>	<b>7,343</b>	<b>534</b>	<b>3,500</b>		<b>0</b>	<b>97,365</b>
FY2019 RGGI Revenues	9,968	1,994	1,994	3,987	1,994						4,450	24,386
Interest Revenue					1,500							1,500
Realign Interest		4,400		3,800	-8,200							0
Realign under performing balances		1,000	-1,000									0
Cove Point Transfer								8,000				8,000
Pepco Constellation Merger MFN									4,500			4,500
AltaGas/WGL Merger										30,320		30,320
<b><u>SEIF Available for FY19</u></b>	<b><u>34,739</u></b>	<b><u>6,985</u></b>	<b><u>9,756</u></b>	<b><u>15,514</u></b>	<b><u>11,501</u></b>	<b><u>28,929</u></b>	<b><u>7,343</u></b>	<b><u>8,534</u></b>	<b><u>8,000</u></b>	<b><u>30,320</u></b>	<b><u>4,450</u></b>	<b><u>166,070</u></b>

# RGGI Revenue, Allowances Sold, Allowance Prices by RGGI Auction, FY2016-20



# RGGI Revenue Allocation Formula

	Original Legislation 2008		Current - BRFA 2015	
Low Income Energy Bill Payment Assistance (DHS)	Straight	17%	At Least	50%
Residential Rate Relief	Straight	23%	Zero	0
Energy Efficiency – Low Income	At Least	23%	At Least	10%
Energy Efficiency - All Sectors	At Least	23%	At Least	10%
Renewable Energy, Energy Education, Climate Change	Up to	10.50%	At Least	20%
Administration	Up to	3.50%	Up to	10%
	Not to Exceed \$4M		Not to Exceed \$5M	

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Chris Rice



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# Open Programs

	Closing Date
<b><i>Commercial &amp; Industrial</i></b>	12/17/18
<b><i>Combined Heat and Power</i></b>	2/15/19
<b><i>Mathias AG</i></b>	11/16/18
<b><i>**Data Center EE</i></b>	12/22/18
<b><i>Jane Lawton Loan</i></b>	6/30/19

	Closing Date
<b><i>Solar Resiliency Hubs</i></b>	3/1/19
<b><i>Community Wind</i></b>	6/30/19
<b><i>Animal Waste to Energy</i></b>	2/1/19
<b><i>Alternative Fuel Infrastructure</i></b>	12/31/18

**\*\*MEA was nominated for Industry Initiative of the Year by DataCenterDynamics, an international business to business media and publishing company**



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# Open Programs with Results

- Clean Energy Grant Program
  - 49% of funds remain
  - 941 awards
    - 83% PV
- EV Charging Station Rebate
  - 564 awards
  - \$723,241 funds awarded (40% of funding remains)
- State Agency Loan Program
  - 2 Awards
  - 5.8 million kWh and 276,000 therms Annual savings
  - 2 additional loans likely to be committed





# Closed Programs (Scoring Phase)

- Low-to-Moderate Income Efficiency Grant Program
  - Budget: \$4.8 million
  - Applications: 55
  - Funds Requested: \$14.3 million
- Maryland Smart Energy Community Grant Program
  - Budget: \$500,000
  - Applications: 25
    - 9 New Communities
    - 16 Existing Communities
  - Funds Requested: \$925,000





# Awarded Programs

## Results

	Number of Awards	Estimated Energy	Total Project Costs	MEA Awards (\$)
Solar Canopies	10	10,931 KW 47 EVSE	\$30,484,771.00	\$1,902,400.00
OSW Business Dev.	5		\$4,201,527.00	\$1,309,856.00



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Richard Mallory



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# What happened

1. WGLH shopped itself to potential buyers
2. AltaGas won the bidding war
3. The Virginia SCC approved the deal
4. The Md PSC approved the acquisition despite OPC's and Staff's opposition by a 4-1 vote
5. The D.C. PSC approved the acquisition resulting in millions of dollars in additional M.F.N. money



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# Why it happened

1. “Natural gas provides environmental benefits, reduces energy costs for residents and businesses, and the expansion of this valuable resource is another example of how Maryland is open for business.” –Gov. Hogan 12/04/2017
2. The Applicants and their lawyers worked diligently to reach a settlement
3. The Government and their lawyers worked diligently to reach a settlement
4. These efforts persuaded a 4-1 majority of the Commissioners on the bench to find that the settlement satisfied the statute.



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# What it means for Maryland

~\$130,000,000.00 (\$130 million USD) in non-MGEF benefits

Direct cash benefits to the state and counties of ~\$90,000,000.00 (\$90 million USD) (\$35mn MGEF, \$30mn credit, \$23mn counties, \$7.5mn WAFF, \$800k excavator training, \$450k bio-gas study, and more)

2x tier 1 renewable gen./storage (2.5MW each)

Other outreach and safety training benefits



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# Most Important for Maryland

## SAFETY

Safety is vital to keeping Maryland gas LDCs open for business.



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Thank You